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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/364,788	07/30/1999	BENJAMIN N. ELDRIDGE	P84-US	9878
50905 7590 06/15/2007 N. KENNETH BURRASTON KIRTON & MCCONKIE P.O. BOX 45120 SALT LAKE CITY, UT 84145-0120			EXAMINER PRASAD, CHANDRIKA	
			ART UNIT 2839	PAPER NUMBER
			MAIL DATE 06/15/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/364,788

Applicant(s)

ELDRIDGE ET AL.

Examiner

Chandrika Prasad

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 90-92, 94-106 and 108-123 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 90-92, 94-106 and 108-123 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendments*

1. The reply filed 4/30/07 consists of amendments to both independent claims, cancellation of claims 93, 107 and remarks related to rejection of claims. The claims are not allowable as explained below.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 90-92, 94-98, 102-106, 108-112 and 116-123 rejected under 35 U.S.C. 103(a) as being unpatentable over Schroeder (3,550,261) in view of Grabbe et al (5152695).

Schroeder (Figures 1-3) shows an electronic component comprising a substrate (a semiconductor device) 10 including a plurality of conductive areas 12 and a plurality of resilient conductive contact structures (metal layers) 20, each having a base portion (not numbered) coupled to the conductive areas and a tip portion (not numbered) displaced from the substrate and the base portion and a beam portion (not numbered) between the base portion and the tip portion wherein a width of a length of the beam portion decreases along its length from the base portion to the tip portion. Each of the base portion, the beam portion and the tip portion comprise a plurality of layers 16, 18 of different metallic materials. The substrate has a conductive layer 13 coupling the

conductive areas to internal circuitry and a passive layer on the surface of the substrate with openings at the conductive areas which forms a plurality of terminals electrically connected to the conductive areas. The tip portion comprises a pointed end. The contact structures are spaced 0.0125 cm apart which is between 2.5 micron (0.0000025 meters) and 2000 micron (0.002 meters). The beam portion has a linear slope from the base to the tip. The tip portion is rectangular in shape. Each contact structure has only one tip and only one beam portion. Schroeder further shows another substrate including a conductive contact element in physical contact with the one and only tip portion (see Figure 2).

But Schroeder does not show the tip portion displaced a vertical distance perpendicular to the surface of the substrate. Such a feature is well known and widely used in the art of electrical connectors. Many of the references previously cited shows such a feature including Grabbe (Figure 6). It would have been obvious to one of ordinary skill in the art at the time of the instant invention to provide such a feature because this will provide a means to connect two elements (conductive areas) separated by a vertical distance as is well known, widely used and shown by Grabbe.

***Claim Rejections - 35 USC § 103***

4. Claims 99-101 and 113-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroeder (3,550,261) as modified by Grabbe et al (5152695).

Schroeder and Grabbe show all the features of these claims except the tip being beveled, triangular or quadrilateral in shape. An official notice is given that such shapes are well known in the art of electrical connectors. The applicant has not provided any

specific reasons or problems to be solved by having these shapes. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to select such shapes from one of numerous configurations because such a selection is generally recognized as being within the level of ordinary skill in the art.

***Response to Arguments***

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


***Contact Information***

7. Any correspondence to this action may be mailed to:

Art Unit: 2839

**Commissioner for Patents  
Post Office Box 1450  
Alexandria, VA 22313-1450**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandrika Prasad whose telephone number is (571) 272-2099. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor can be reached at (571) 272-2800 ext 39. The fax number is 571-273-8300.

  
Chandrika Prasad  
Primary examiner  
May 29, 2007